occurs in coastal forests (R. L. Taylor and B. MacBride, Vascular plants of British Columbia, University of British Columbia Press, Vancouver, 1977).

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## **REVIEW**

Oaks of California. By Bruce Pavlik, Pamela C. Muick, Sharon Johnson, and Marjorie Popper. 1991. Cachuma Press, Los Olivos, CA, and The California Oaks Foundation. 184 pp. \$19.95 Paper, \$29.95 Cloth.

Oaks of California, written by Bruce Pavlik and collaborators, is unique in its wide appeal to both specialists as well as enthusiasts. Obscure yet captivating details invite exploration into the world of oaks while providing depth to match the book's substantial ecological and historical breadth. Unusually beautiful graphics along with contemporary and artifactual details make Oaks of California a visually appealing collector's item as well.

Pavlik has produced a thorough, well-communicated, enjoyable monograph beginning with the botanical basics. These include definitions, the taxonomy of the genus *Quercus*, descriptions and profiles of each species as well as discussions of hybrid crosses. Identification is significantly enhanced by watercolors by Allison Atwill and abundant colorful photographs. Ecological issues covering geographical distribution, range maps, geological associations, and oak-aligned plant communities receive well organized, detailed emphases also.

The chapter entitled, "Oaks and Wildlife" is devoted to the intricate dynamic between oaks and literally thousands of organisms. Specifically described are oakengendered relationships and dependencies of insects, mammals, reptiles and birds. For example, the commentary on the interplay between the host oaks and parasitic gall wasps which are further preyed upon by other insects suggests the centrality and importance of this genus to California's biota.

"California Oaks and the Human Past" then provides fascinating anthropological evidence of the monumental role these majestic trees played in the survival and sanctity of early Americans. Reliance of humans upon oaks for food, medicine, shelter, arts and ceremony was total. Pavlik tells of later societies' unfortunate lack of regard towards California's heritage trees and the decimation which was to follow.

Chapter by chapter, Pavlik and co-authors lead the reader to the unquestionable conclusion that the genus *Quercus*, once integral to all forms of life within the state, now requires active protection. Leaving little up to the imagination, methods of recently successful oak woodland conservation attempts have been documented to assist in today's badly needed efforts.

The final reference chapters are no less pertinent. From recommendations on state-wide preserves or the locations of unique oak woodland habitats, to indexes of common and scientific names of plants, invertebrates, vertebrates noted in the text, to a listing of "Endangered Species Associated with California Oaks", each list will provide critical information to any biologist.

Ever depiction, and every articulately expressed thought in *Oaks of California* reminds the reader of the precious oak-peppered retreats under which each of us has at one time or another sought refuge and inspiration. This book will act not only as educator, but as activator in the on-going challenge for the preservation of California native oaks.

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